



Technical Service Bulletin

GROUP CAMPAIGN	NUMBER 24-01-054H
DATE JULY 2024	MODEL(S) SEE BELOW

SUBJECT: BMS SOFTWARE UPDATE FOR DTC P1BB20: 12V BATTERY OVER VOLTAGE WARNING (SERVICE CAMPAIGN 9B4)

* IMPORTANT

Dealers must perform this service campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

Access the “Vehicle Information” screen via WEBDCS to identify open campaigns.

Description: This bulletin provides the procedure to update the software for the Battery Management System (BMS) on certain Elantra Hybrid (CN7 HEV), Sonata Hybrid (DN8 HEV), and Tucson Hybrid (NX4 HEV) vehicles that may exhibit a warning light with DTC P1BB20.

DTC Description: P1BB20 – 12V Lithium Battery Cell Voltage High

Applicable Vehicles (Certain):

- 2021–2023MY Elantra Hybrid (CN7 HEV) produced from 12/15/2020 - 02/13/2023
- 2020-2022MY Sonata Hybrid (DN8 HEV) produced from 01/29/2020 - 03/08/2023
- 2022–2024MY Tucson Hybrid (NX4 HEV) produced from 01/20/2021 - 12/18/2023

GDS Information:

System	Event #	Description
BMS	796	DN8 HEV 12V LITHIUM BATTERY OVER VOLTAGE WARNING LIGHT IMPROVEMENT (P1BB20)
	1037	CN7 HEV 12V LITHIUM BATTERY OVER VOLTAGE WARNING LIGHT IMPROVEMENT
	1038	NX4 HEV 12V LITHIUM BATTERY OVER VOLTAGE WARNING LIGHT IMPROVEMENT

(*or use a later available event as listed in the GDS BMS Update screen if one is available.)

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(SERVICE CAMPAIGN #9B4)

Warranty Information:

Model	Op. Code	Operation	Op. Time	Casual Part	Nature Code	Cause Code
Elantra Hybrid (CN7 HEV)	30D163R0	BMS Software Update	0.3 M/H	37513-BY000 (CN7 HEV) 37513-L7000 (DN8 HEV) 37513-P0000 (NX4 HEV)	I14	ZZ3
Sonata Hybrid (DN8 HEV)						
Tucson Hybrid (NX4 HEV)						

NOTE 1: Submit claim on Claim Entry Screen as “Campaign” type.

NOTE 2: If a part is found in need of replacement while performing this campaign and the affected part is still under warranty, submit a separate claim using the same repair order. If the affected part is out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

NOTE 3: Op times include VIN, Mileage, and photo capture of the “ECU update complete” screen as outlined in the Digital Documentation Policy.

ROM ID Information Table: Event # 796

Model	MY	System	ECU Part Number	ROM ID		
				Old	New	
Sonata Hybrid (DN8 HEV)	2020 - 2022	BMS	37513-L5000	5000	5520	
				5200		
				5400		
				5420		
				5440		
				5460		
				5480		
				5500		
			37513-L7000	5600		5740
				5620		
				5640		
				5680		
				5700		
				5720		

ROM ID Information Table: Event # 1037

Model	MY	System	ECU Part Number	ROM ID	
				Old	New
Elantra Hybrid (CN7 HEV)	2021 - 2023	BMS	37513-BY000	6000	6080
				6020	
				6040	
				6060	

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ROM ID Information Table: Event # 1038

Model	MY	System	ECU Part Number	ROM ID	
				Old	New
Tucson Hybrid (NX4 HEV)	2021 – 2024	BMS	37513-P0000	6000	6120
				6020	
				6040	
				6060	
				6100	

Manual Mode Password: Event # 796

ECM Menu	Password
DN8 HEV BMS 37513-L5000	5000
DN8 HEV BMS 37513-L7000	7000

Manual Mode Password: Event # 1037

ECM Menu	Password
CN7 HEV BMS 37513-BY000	7531

Manual Mode Password: Event # 1038

ECM Menu	Password
NX4 HEV BMS 37513-P0000	3000

Service Procedure:

STUI



This TSB includes Repair validation photos. Refer to the latest Warranty Digital Documentation Policy for requirements.

NOTICE

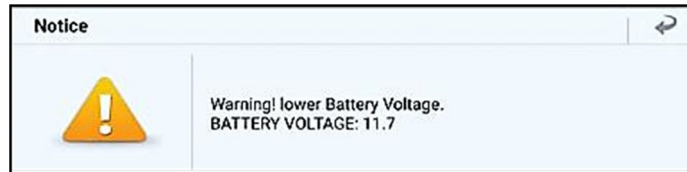
You must initially perform the GDS ECU update in Auto Mode.

- If the ECU update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

NOTICE

GDS Vehicle Battery Low Voltage Warning:

If voltage is below 12 volts per the GDS warning, then select **Back** and run the vehicle for at least 20 minutes to ensure an adequate battery charge for reliable update results. Turn ignition back **ON**, and then retry the ECU update again.



1. Perform the ECU update in Auto Mode.

Use the **ID Check** to verify the ROM ID before updating the software.



Information

Refer to TSB 15-GI-001 for additional information for the ECU update Procedure.

#796: DN8 HEV - EXAMPLE

ECU Upgrade 1,293

KMHL54JJ0NA037978 SONATA hybrid(DN8 HEV)/2022/G 2.0 GDI HEV

Auto Mode

Power Train | Chassis | Body

BMS | Battery Management System
This system requires an ECU Upgrade.

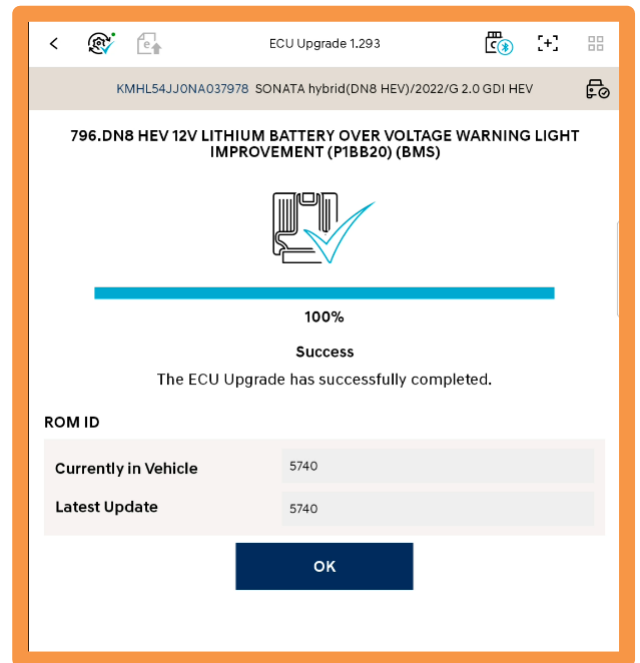
796.DN8 HEV 12V LITHIUM BATTERY OVER VOLTAGE WARNING LIGHT IMPROVEMENT (P1BB20) (BMS)

VCI	Current ROM ID	Latest ROM ID	TSB	Update
	5640	5740		

2.

STUI

Take a screenshot of the “ECU Update Complete” screen using your tablet and upload to STUI.



3. After the ECU update process shows 100% complete, cycle the ignition key to **OFF** for at least 10 seconds to reset the control unit.
4. Perform an **All Systems Fault Code** search and erase DTC history that had incidentally occurred from the ECU update.
5. Start the vehicle in **Ready** mode to confirm proper operation of the vehicle.